



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

MAY 25 1999

Mr. Mark Villarino
Hazard Communication Specialist
14422 South San Pedro Street
Gardena, CA 90248

Reference No. 99-0097

Dear Mr. Villarino:

This is in response to your letter of April 13, 1999, regarding the basis of solution percentages under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether the concentration of sulfuric acid is based on weight/weight, volume/volume, or weight/volume.

The percentages of the sulfuric acid entries in the hazardous materials table are based on the weight of the solute to the weight of the solvent.

I hope this answers your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Delmer F. Billings

Chief, Standards Development

Office of Hazardous Materials Standards



990097.

172.101(s)



George

§ 172.101 (S)
Sulfuric Acid.

99-0097

April 13, 1999

FAX: 202-366-3012

Edward T. Mazzullo
Director of the Office of Hazardous Material Standards
Research and Special Programs Administration
Department of Transportation

Dear Mr. Mazzullo,

I called the information center at 1-800-467-4922 to clarify what the percent for the limits of the Sulfuric acid entry was based on (weight/weight, volume/volume, or weight/volume). The regulations do not address this. I was transferred to Mr. George Cushmac who was very helpful and confirmed that the regs do not address this issue but through his checking, he believes the percentage to be based on a weight-to-weight ratio (weight of solvent to weight of solute). He also suggested that I write you to request confirmation in writing from you in this matter.

I now ask that you please provide written confirmation of Mr. Cushmac's statement that solution percentages in the Hazardous Materials Table are based on a weight to weight ratio.

Thank you for your time and I will be expecting a prompt response.

Sincerely,

Mark Villarino
Hazard Communication Specialist



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